

SEQUENCE LISTING

<110> The Queen's University of Belfast
Nelson, John
Walker, Brian
McFerran, Neil
Patrick, Harriot

<120> Peptide Fragments of Murine Epidermal Growth Factor as Laminin Receptor Targets

<130> 8830-170 (43784-181696)

<140> US 09/673,785

<141> 2000-12-29

<150> PCT/GB99/01211

<151> 1999-04-21

<150> GB 9808407.2

<151> 1998-04-22

<160> 31

<170> PatentIn version 3.2

<210> 1

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence based on linear sequence of amino acids 925-933 of mature murine laminin B1 chain

<220>

<221> MOD_RES

<222> (9)..(9)

<223> AMIDATION

<400> 1

Cys Asp Pro Gly Tyr Ile Gly Ser Arg
1 5

<210> 2

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence based on amino acid residues 33 to 42 of murine epidermal growth factor (mEGF)

<400> 2

NS

TECHNICAL INFORMATION
RECEIVED BY 12/15/2000
12/15/2000

Cys Val Ile Gly Tyr Ser Gly Asp Arg Cys
1 5 10

<210> 3
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> tyrosine analogue at position 5

<400> 3

Cys Val Ile Gly Xaa Ser Gly Asp Arg Cys
1 5 10

<210> 4
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> arginine analogue at position 9

<400> 4

Cys Val Ile Gly Tyr Ser Gly Asp Xaa Cys
1 5 10

<210> 5
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)

<223> ACETYLATION

<400> 5

Cys Val Ile Gly Tyr Ser Gly Asp Arg Cys
1 5 10

<210> 6

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<220>

<221> MOD_RES

<222> (10)..(10)

<223> AMIDATION

F1
<400> 6

Cys Val Ile Gly Tyr Ser Gly Asp Arg Cys
1 5 10

<210> 7

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<220>

<221> MOD_RES

<222> (1)..(1)

<223> Acteoamido methyl group

<220>

<221> MOD_RES

<222> (1)..(1)

<223> ACETYLATION

<220>

<221> MOD_RES

<222> (10)..(10)

<223> AMIDATION

<220>

<221> MOD_RES

<222> (10)..(10)

<223> Acteoamido methyl group

<400> 7

Cys Val Ile Gly Tyr Ser Gly Asp Arg Cys
1 5 10

<210> 8

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<220>

<221> MISC_FEATURE

<222> (5)..(5)

<223> tyrosine analog

<400> 8

~~F~~
Cys Val Ile Gly Xaa Ser Gly Asp Arg Cys
1 5 10

<210> 9

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<220>

<221> MISC_FEATURE

<222> (9)..(9)

<223> Citrulline at position 9

<400> 9

Cys Val Ile Gly Tyr Ser Gly Asp Xaa Cys
1 5 10

<210> 10

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<220>

<221> MISC_FEATURE

<222> (5)..(5)
<223> 2',6'-dimethyl-beta-methyl-tyrosine at position 5 of linear sequence of amino acids 925-933 of the mature murine b1 chain

<400> 10

Cys Asp Pro Gly Xaa Ile Gly Ser Arg
1 5

<210> 11
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> 2-O-methyl-tyrosine at position 5 of linear sequence of amino acids 925-933 of the mature murine b1 chain

<400> 11

Cys Asp Pro Gly Xaa Ile Gly Ser Arg
1 5

<210> 12
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> 2-O-ethyl-tyrosine at position 5 of linear sequence of amino acids 925-933 of the mature murine b1 chain

<400> 12

Cys Asp Pro Gly Xaa Ile Gly Ser Arg
1 5

<210> 13
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> tyrosine analog

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Citrulline at position 9 of sequence based on mEGF 32-42

<400> 13

Cys Val Ile Gly Xaa Ser Gly Asp Xaa Cys
1 5 10

<210> 14
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> DISULFID
<222> (1)..(10)
<223> Disulphide bond between N and C terminal cysteines of sequence
based on mEGF 33-42

<400> 14

Cys Val Ile Gly Tyr Ser Gly Asp Arg Cys
1 5 10

<210> 15
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence corresponding to COOH terminal end of the
human laminin receptor

<400> 15

Pro Thr Glu Asp Trp Ser Ala Gln Pro Ala Thr Glu Asp Trp Ser Ala
1 5 10 15

Ala Pro Thr Ala

<210> 16
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MOD_RES
<222> (1)..(1)
<223> acetamido methyl group

F1
<220>
<221> MOD_RES
<222> (10)..(10)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> AMIDATION

<400> 16

Cys Val Ile Gly Tyr Ile Gly Asp Arg Cys
1 5 10

<210> 17
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MOD_RES
<222> (1)..(1)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> AMIDATION

<400> 17

Cys Val Ile Gly Tyr Ser Gly Ser Arg Cys
1 5 10

<210> 18
<211> 10
<212> PRT
<213> Artificial Sequence

Fi
<220>
<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MOD_RES
<222> (1)..(1)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> AMIDATION

<400> 18

Cys Val Ile Gly Tyr Ile Gly Ser Arg Cys
1 5 10

<210> 19
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MOD_RES
<222> (1)..(1)
<223> acetamido methyl group

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> citrulline at position 9

<220>
<221> MOD_RES
<222> (10)..(10)
<223> acetamido methyl group

F1

<220>
<221> MOD_RES
<222> (10)..(10)
<223> AMIDATION

<400> 19

Cys Val Ile Gly Tyr Ser Gly Asp Xaa Cys
1 5 10

<210> 20
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MOD_RES
<222> (1)..(1)
<223> acetamido methyl group

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> tyrosine analog

<220>
<221> MOD_RES
<222> (10)..(10)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> AMIDATION

<400> 20

Cys Val Ile Gly Xaa Ser Gly Asp Arg Cys
1 5 10

<210> 21
<211> 10
<212> PRT
<213> Artificial Sequence

f1
<220>
<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MOD_RES
<222> (1)..(1)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> AMIDATION

<220>
<221> MOD_RES
<222> (10)..(10)
<223> acetamido methyl group

<400> 21

Cys Val Ala Gly Tyr Ser Gly Asp Arg Cys
1 5 10

<210> 22
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MOD_RES
<222> (1)..(1)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> AMIDATION

<220>
<221> MOD_RES
<222> (10)..(10)
<223> acetamido methyl group

<400> 22

Cys Ala Ile Gly Tyr Ser Gly Asp Arg Cys
1 5 10

<210> 23
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MOD_RES
<222> (10)..(10)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> AMIDATION

<400> 23

Ala Val Ile Gly Tyr Ser Gly Asp Arg Cys

1

5

10

<210> 24
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MOD_RES
<222> (1)..(1)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> AMIDATION

<400> 24

Cys Val Ile Gly Tyr Ser Gly Asp Arg Ala
1 5 10

<210> 25
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MOD_RES
<222> (1)..(1)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> acetamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> AMIDATION

<400> 25

Cys Val Ile Gly Tyr Ala Gly Asp Arg Cys
1 5 10

<210> 26
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> A biotinylated derivative used to demonstrate that mEGF(33-42)
bound to the 67kDa laminin receptor

F1
<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MOD_RES
<222> (1)..(1)
<223> acetaamido methyl group

<220>
<221> MOD_RES
<222> (10)..(10)
<223> acetaamido methyl group

<220>
<221> MOD_RES
<222> (11)..(11)
<223> AMIDATION

<220>
<221> MOD_RES
<222> (11)..(11)
<223> biotinylation

<400> 26

Cys Val Ile Gly Tyr Ser Gly Asp Arg Cys Lys
1 5 10

<210> 27
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence of concensus sequence which presents an acceptable motif for 67-LR activation by both mEGF (33-42)
Laminin B1 (925-933)

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> substitute amino acid residue or amino acid analogue at position 3

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> substitute amino acid residue or amino acid analogue at position 5

<400> 27

Gly Tyr Xaa Gly Xaa Arg
1 5

F1

<210> 28
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 28

Tyr Ile Gly Ser Arg
1 5

<210> 29
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence of mEGF 33-42 with glycine residues replaced in turn by a.a- dialkyl substituted amino acids (a-amino isobutyric acid AIB)

<220>
<221> MISC_FEATURE
<222> (4)..(4)
<223> a-amino isobutyric acid (AIB)

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> a-amino isobutyric acid (AIB)

<400> 29

Cys Val Ile Xaa Tyr Ser Xaa Asp Arg Cys
1 5 10

<210> 30

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence of mEGF 33-42 with glycine residues replaced
in turn by a.a- dialkyl substituted amino acids
(aminocyclopropane carboxylic acid ACPA)

<220>

<221> MISC_FEATURE

<222> (4)..(4)

<223> aminocyclopropane carboxylic acid (ACPA)

<220>

<221> MISC_FEATURE

<222> (7)..(7)

<223> aminocyclopropane carboxylic acid (ACPA)

<400> 30

Cys Val Ile Xaa Tyr Ser Xaa Asp Arg Cys
1 5 10

<210> 31

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic construct

<220>

<221> MISC_FEATURE

<222> (5)..(5)

<223> tyrosine analog

<400> 31

Cys Asp Pro Gly Xaa Ile Gly Ser Arg
1 5